

**Robert H. Dennard** was born in Terrell, TX, in 1932. He received the B.S. and M.S. Degrees in electrical engineering from Southern Methodist University, Dallas, TX, in 1954 and 1956 respectively, and the Ph.D. Degree from Carnegie Institute of Technology, Pittsburgh, PA in 1958. He then joined IBM Research Division where his early experience included the study of new digital devices and circuits for logic and memory applications, and the development of advanced data communication techniques.

Since 1963 Dr. Dennard has been at the IBM Thomas J. Watson Research Center, Yorktown Heights, NY, where he has been involved in microelectronics research and development from the early days onward. His primary work has been in MOS transistors and integrated digital circuits using them. In 1967 he invented the dynamic RAM memory cell used universally in computers today. With coworkers he developed the concept of MOS transistor scaling in 1972, which is often cited as a guiding principle for microelectronics. He was appointed an IBM Fellow in 1979. He has contributed numerous papers on advances in CMOS technology and on prospects and challenges of scaling that technology to very small dimensions.

Dr. Dennard is a Fellow of IEEE and a member of the National Academy of Engineering and the American Philosophical Society. He holds 67 US patents and has published over 100 technical papers. He has received many honors including the National Medal of Technology from President Reagan in 1988 and induction into the National Inventors Hall of Fame in 1997. In 2009 he was awarded the Charles Stark Draper Prize by the National Academy of Engineering. He also was honored with the 2009 IEEE Medal of Honor. Dr. Dennard received the prestigious Kyoto Prize in 2013.